

## FUNCTIONAL PARAPLEGIA (WITH CASE REPORT)

KENNETH A. MACKENZIE, M.D.,

*Halifax*

AS a representative of that large and interesting group of nervous disorders which we regard as functional in nature, Paraplegia has more than an ordinary claim on our attention. In the first place it is one of the easiest neuroses to cure and lends itself particularly well to the elucidation of the principles on which psychotherapy is based. In the second place it is not always recognized as such and cases have passed through the hands of eminent physicians who have either failed to recognize its nature or if they have recognized it, have failed to bring about a cure.

In the spring of 1918 I arrived at the Seale Hayne Neurological War Hospital on the same day as a patient who had not walked for three years. He was a bright, intelligent man of thirty years, well nourished and healthy in appearance. For eighteen months he had been a patient in various military hospitals in England. It is hardly probable that this patient could have remained this long in hospital without having the skilled advice of some eminent British clinicians. I do not know whether they recognized the functional nature of the case or not, but I do know that they failed to cure him and that he was discharged to pensions with 100% disability. Eighteen months later, that is three years from date of origin, he was taken from his home to Seale Hayne and a few days later I saw him running around the square like a school-boy. His cure had been effected by psychotherapeutic measures.

A few days later I saw another patient who was brought to hospital on a stretcher. Two years previously he had a fracture dislocation of the vertebræ. This was followed by a laminectomy which left a depression in his back large enough to hold a small saucer. He had not made any attempt to walk since the accident. As there was definite evidence of organic damage to the cord, such as the presence of Babinski's reflex and ankle clonus, there was a good excuse for looking upon this case as an organic and permanent paraplegia. The neurologists at Seale Hayne, however, assumed that there might be a functional element

in the case, and their efforts were rewarded a few days later by seeing the man walk several miles with the aid of a walking stick.

This was a case in which a minor part of the disability was organic and permanent, but in which the major part was functional and curable. I cite these cases to show you that it is not only the busy general practitioner who may fail to recognize and cure such cases, but that the same thing happens to men of wider and more mature experience.

In the third place functional paraplegia has played such an important rôle in the history of quackery that this phase of the subject has more than ordinary interest. There is hardly an irregular sect or system of cure which has not received an undeserved amount of credit because they have made a paraplegic walk. Two years ago a girl who had not walked for four years made the pilgrimage to St. Anne de Beaupre and there threw away her crutches. A miracle was announced. The records of religious shrines have in all ages supplied evidence of cures of similar nature. St. Anne de Beaupre and Lourdes have scores of cases to their credit. Similar cases fall into the hands of chiropractors, osteopaths, Christian scientists and other less widely known healing cults. A marvellous cure is heralded far and wide, and becomes an effective advertisement for the particular treatment; another failure is credited to the medical profession and thousands of people are persuaded to seek help at these false fountains of healing. Many of them are relieved of their money if not of their malady, and so the game has been going on since the beginning of history.

I might also cite the case recorded in the fifth chapter of St. John of the cripple who, being a paraplegic for thirty years, was commanded to take up his bed and walk. He did so and it states distinctly that his cure was the result of his great faith. It is not too much to say that this was a case of functional paraplegia, but I am not unmindful that I am on dangerous ground when I attempt to remove this case from the realm of the miraculous. I can defend my

position, however, by saying that the laws of nature would never be broken by Divine intervention if the desired effect could be produced by the operation of natural law.

Having made a feeble attempt to emphasize the importance of my subject, I make no apology for reporting a case which I was fortunate enough to meet, treat and cure in 1919. I realize that there is nothing remarkable in this case from the point of view of the neurologist. However, it may serve to focus attention on certain principles of therapy which are not as widely appreciated as they should be.

The case referred to is a lady, now forty years of age. She was thirty-eight years old at time of treatment, and for seventeen years, had been a complete invalid. As the result of a few weeks treatment by psychotherapy, she was restored to a normal state of health and for the past two years has been leading a normal life in her home. The history is as follows:

Until the age of twenty-one, she had no illness of any importance, but she was looked upon as delicate, and any minor illness was a pretext for unusual solicitude and over zealous attention on the part of her parents. She attended school, played games and took a normal interest in her work both at home and at school; I was informed that her school work was above the average. After completing her High School work, she attended the provincial Normal School in order to qualify for the teaching profession. In 1901 she was employed as a teacher in a rural community in Nova Scotia. In 1902 she had some difficulties with the school trustees and was obliged to give up her charge. She returned home in the middle of the school session and was treated by her physician for a "nervous breakdown." She was kept in bed for two weeks and then rested at home and later at the seaside for several months. The symptoms which she recalls as having had at that time were general weakness, heavy sensation in feet, numbness of limbs, sleeplessness, anorexia and palpitation. In September, 1902, she had typhoid fever. She was febrile for three weeks and during convalescence she had a relapse. She apparently recovered but found that she was unable to move arms or legs. This was the beginning of a paraplegia which lasted for seventeen years.

At first the condition was looked upon as one of typhoid spine. In later years the attending physician looked upon it as a functional disability, but his therapeutic resources failed to

effect a cure. There is no doubt that the sympathetic interference of relatives was a factor in defeating the attempts of the attending physician to bring about a cure. During the seventeen years which followed, changes were of a minor character and in the direction of improvement. In the second year, for example, the muscles of the hands and forearms became relaxed and normal and she was able to feed herself, paint china, crochet and do fancy work. She spent many months in the local Hospital and in 1905 returned to her home and accepted her state as one of permanent invalidism. This was also accepted by her friends. In 1912 a further attempt was made to treat her and she spent thirteen months in the Victoria General Hospital, Halifax, where she received her full share of drugs, massage, electricity, thermocautery, etc. the usual programme for hysterical patients. Her condition did not change in any respect, and she returned to her home in the same condition as on admission.

During these years at home, she neither walked, nor attempted to walk, nor did she even lift her head from the pillow. She was tenderly cared for by her friends. Every morning she was lifted from her bed and placed on an invalid chair where she spent the day, and at night she was carefully lifted back to her bed. In early spring she was wheeled out on a verandah, which faced the main street of the town, and was the daily object of sympathy and pity to passers by throughout the warm season. And thus it happened that for many years she shared honours with the robins and the mayflowers as the harbingers of spring. Her daily life, however, was not idle; she painted, sewed, crocheted and read all kinds of good literature. Through the kindness of friends she accumulated a very respectable library. She kept up a very interesting correspondence with many friends and her letters were neatly written and full of humour. Through the kindness of friends she had installed in her bedroom, a telephone, the other end of which was placed in front of a methodist pulpit and she was thus enabled to be a constant though hidden member of every service.

I knew this patient when she was a girl at school and was fairly familiar with her history although I had not seen her professionally. On my return from overseas I made a special point of seeing her. My first inquiry from friends brought the reply that she was still living but that she was very feeble and that the end was

very near. On examination I found her pale and sallow, with an anxious expression. All the muscles except those of the hands and forearms were spastic. The legs could not be bent at the knees or hips. The muscles of the neck also were spastic and prevented the head from moving freely in any direction. When she wished to turn her head, she would ask for help and it was quite plain that the inability to move the head was due to spasticity of opposing muscles and not to paralysis. There was a hyperæsthesia and hyperalgesia of the skin all over body and an obvious fear of being hurt. There were no anæsthetic areas. The deep reflexes were all exaggerated; there were no abdominal reflexes. She complained of severe pain in back, legs and neck, *i. e.*, in the areas of spasticity. The legs were œdematous to the knee, being twice their normal size, easily pitting on pressure. There was not present a single emphatic sign of organic nervous disease. The œdema of the legs was a bit disconcerting. However, examination of heart and kidneys definitely excluded cardiac and renal disease and I concluded that œdema was due to stasis from long disuse.

Having decided that the case was functional, I announced in a very emphatic manner that her case was curable and that I hoped to have the privilege of effecting the cure. Her facial expression quickly changed from one of forlorn helplessness to that of genuine hopefulness. She stated that she often had a feeling that someone would help her and she expressed a hope that it would be me. I had her brought to Halifax on a stretcher and placed in a private hospital. Her friends expressed doubt as to her ability to stand the journey. The details of treatment may be now very briefly told. The first day was devoted to rest after the railway journey. On the second day I spent some time in describing some simple facts in connection with the anatomy and physiology of the nervous system and demonstrated to her that I knew that the various nervous paths were intact and that I was certain of a complete cure. My first seance consisted of grasping the head with my two hands, moving it from side to side and in an antero-posterior direction until the muscles were tired and were felt to relax. I then asked her to make the effort herself, assisting her less and less until I felt that she was performing the movements herself. I then said sharply to her, "Now you can move your head, you have already done it, do it again." To her great surprise she found that she had

complete control of all her head movements, the spasticity of the muscles disappeared, and what was most interesting, never became spastic again. It was the first time in seventeen years that she moved her head freely. Her delight was indescribable and the prospect of a cure was now a certainty.

On each successive day other groups were dealt with in the same successful manner. At the same time that spasm ceased, the pain also disappeared. For a time the œdema of the feet and legs threatened to defeat my efforts, but time and patience and perseverance won.

The various progress steps were as follows: On the third day she sat up in bed and in a chair without support. On the fourth day she stood on her feet at foot of bed. On the fifth day she walked across the room supported by the doctor and nurse. During the second week she walked up and down stairs except that she steadied herself by grasping the bannister. It was much easier for her to go up stairs than down. On the fourteenth day she took her first auto ride and walked to and from car with assistance of nurse. On the sixteenth day she found her balance for the first time and was able to stand alone. On the twenty-first day she got out of bed alone and walked around the room without any assistance. On the twenty-eighth day she left Hospital and went to a private home on the distinct understanding that she would do without a nurse. From then on she dressed herself, attended to her toilette, walked about the house and dined at the table. During the fifth week she took walks on the streets and in the public gardens. During the sixth and seventh weeks, she went shopping, attended church, theatres, etc. It was then, for the first time in her life, that she saw a moving picture, as there were no such things in operation when she went to bed.

At the end of seven weeks she returned to her home as an ordinary passenger stopping en route to spend a week-end with friends in a neighbouring town. You can imagine what a sensation she caused when she stepped off the train in her own town, where she was known as an invalid for seventeen years.

During the two years which have elapsed since treatment, she has been living a normal life, doing housework, shopping, attending church and theatre and calling on her friends. She has gained many pounds in weight and looks well.

The points worth emphasizing in the case are:

1. The patient was cured by psychotherapy alone. No accessory measures were employed. The first steps may be called therapeutic conversation, the object of which is to gain the confidence of the patient and prepare the soil for the reception and acceptance of suggestions. Then followed a series of requests to perform certain movements always accompanied by positive and emphatic assertions that she could do it. Finally a long round of re-educational exercises which led up to and included all the activities of a normal healthy life.

2. The patient could have been cured at any time during the seventeen years of invalidism by similar methods and on the other hand the paralysis might have continued to the end of the patient's life if left alone.

3. The clinical features were similar to the phenomena which can be produced by suggestion during the hypnotic and post-hypnotic states and in the waking state in some suggestible individuals.

4. The secondary changes such as oedema, deformity of toes, and change of postural tone in muscles interfered with the rapidity of cure. If these features had been absent, the cure in this case might have been brought about in a few days instead of a few weeks.

The principles of cure which are summed up under the name of psychotherapy have a wide range of usefulness in clinical medicine. Every physician is a psychotherapist consciously or unconsciously, but the principles can be used much more than they are. It is not even necessary to be a medical man in order to be a psychotherapist; a clergyman, layman or quack may make psychotherapeutic cures, but in doing so they are usurping the place of the properly trained physician who alone is qualified to differentiate between organic and functional disease, and thus select those cases which require psychotherapy and those who require other measures for relief.

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## EPIDEMIC ENCEPHALITIS—THE INFLUENCE OF HORSE SERUM IN TREATMENT—A PRELIMINARY NOTE\*

COLIN K. RUSSEL, M.D.,

*Lecturer on Clinical Neurology, McGill University, Montreal*

**I**F one seeks in the literature for assistance or suggestions, even, in the treatment of epidemic encephalitis, one will, I am sure, meet only disappointment. Though much has been written in the description of this disease, one must be impressed by the fact that very little has been done to help us in the treatment. One's feeling of helplessness in such cases is extreme. In my experience, the administration of hexamine has been absolutely useless, and it is very doubtful if it could be expected to accomplish anything. While I perfectly well recognize that from the small series that I have to report no definite conclusions can be drawn, it has seemed to me while these cases were under observation, that the results were definite enough to justify bringing this method of treatment to your attention. In the first case, a definite progressive and

severe type, the improvements following the administration of diphtheric antitoxin were so evident as to justify its use in further cases. The second case was already of long standing before admission to the hospital, and while the results were not so striking as far as the signs of the disease were concerned, there seemed to be an ameliorating action on the temperature and the progressive character of the disease. One can imagine the destructive processes at work were already too far advanced to be affected. In the third case the results were most strikingly satisfactory. A fulminating onset with all the evidences of the hæmorrhagic type of the disease, headache, beginning choked discs and the characteristic C.S.F. with marked improvement following so definitely on the administration of the serum.

The fourth and fifth cases were evidently of the polio-encephalitic type. Both showed a definite

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\*Read by Dr. Wm. Boyd.